

Applic. No. 09/933,054

Amdt. dated March 24, 2004

Reply to Office action of November 24, 2003

Remarks/Arguments:

Reconsideration of the application is requested.

Claims 1-6, 8, and 12-25 are now in the application. Claim 21 has been added, support for which can be found in Figs. 1 and 4 and the corresponding description from the specification. More specifically, Fig. 1 and the corresponding description disclose a plastic profile 17 as a couple. The plastic profile 17 has an undercut receiving groove 20 which serves to fix a seal foot 22 belonging to a magnetic seal 21. Fig. 4 and the corresponding description disclose a plastic profile 78 as a couple. The plastic profile 78 has an undercut groove-like receptacle 85 which fastens a seal foot 83 belonging to a magnetic seal 82. Since the seal foot is fixed to the groove of the profile 17 or to the receptacle 85 of the profile 78, the profile holds the respective seal foot directly. Claims 22-25 have also been added, support for which can be found in the original claims. No new matter has been added.

In the third paragraph on page 2 of the Office action, claims 1, 12-14, and 20 have been rejected as being fully anticipated by Pasqualini et al. (U.S. Patent No. 4,617,759) (hereinafter "Pasqualini") under 35 U.S.C. § 102.

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As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

Claims 1 and 21 call for, *inter alia*:

an outer paneling having a free edge portion and being made from a metallic material, and an inner paneling having an edge portion and being made from metallic material.

The Pasqualini reference discloses a refrigerator door having a steel sheet door shell (16) and a plastic counterdoor (17) (column 1, lines 16 to 22, and column 3, lines 6 to 19).

Pasqualini does not disclose a refrigerator door with an outer paneling having a free edge portion and being made from a metallic material, and an inner paneling having an edge portion and being made from metallic material, as recited in claims 1 and 21 of the instant application. Pasqualini discloses a steel sheet door shell (16) and a plastic

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counterdoor (17). This is contrary to the invention of the instant application as claimed, in which the inner and outer panelings are formed of metallic material.

Since claim 1 is believed to be allowable over Pasqualini, dependent claims 12-14 and 20 are believed to be allowable over Pasqualini as well.

Even though the claims are believed to be allowable over Pasqualini, the following remarks about inventiveness of the instant application are given:

Pasqualini is directed to a particular bellows gasket which tightly seals the door and the cabinet of a refrigerator. In addition, Pasqualini does not consider alternative materials for either the steel sheet door shell (16) or the counterdoor (17). As a result, the teaching of Pasqualini does not give a person of ordinary skill in the art any motivation to contemplate a different construction of either the steel sheet door shell (16) or the counterdoor (17). Pasqualini's teaching, therefore, especially does not provide a person of ordinary skill in the art any motivation modify the refrigerator door, so that it includes a door shell and a counterdoor, both made from metallic material. Moreover, since the counterdoor is made of plastic and the door shell is

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made of metal, the problem of thermal coupling between the door shell and the counterdoor does not exist. Therefore, a person of ordinary skill in the art is given no motivation to connect the edges of the door shell and the counterdoor with a thermally insulating couple.

In the second paragraph on page 3 of the Office action, claims 1-6, 8, and 12-20 have been rejected as being obvious over Kiel (U.S. Patent No. 5,193,310) in view of Kordes et al. (U.S. Patent No. 4,053,972) (hereinafter "Kordes") under 35 U.S.C. § 103.

Claim 1 calls for, *inter alia*:

a thermally insulating couple being a fastening element of a door seal and connecting the edge portion to the free edge portion, the couple substantially thermally uncoupling the edge portion from the free edge portion.

Claims 15 and 16 call for, *inter alia*:

a thermally insulating couple connecting the edge portion to the free edge portion, the couple substantially thermally uncoupling the edge portion from the free edge portion.

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The Kiel reference discloses a refrigerator door (10) having a metal outer shell (12) and an injection molded plastic inner liner pan (14) (column 1, lines 13 to 25, and column 2, lines 20 to 30). Therefore, Kiel does not disclose a refrigerator door having an outer paneling and an inner paneling, both made from metallic material.

The Kordes reference discloses refrigerator doors having an inner paneling and an outer paneling.

Kordes discloses a refrigerator door having a face (14) and a drum (22). The edge portions of the face (14) and drum (22) are fastened together with S-shaped retainers (30) which allow relative movement between the face (14) and the drum (22) (column 2, lines 32 to 47, and column 3, lines 35 to 66). The refrigerator door includes a separate gasket 40. Kordes is silent about the material that the face (14) and the drum (22) are made of and Kordes is silent about thermal characteristics of the retainers (30). Therefore Kordes does not disclose that the refrigerator door has an outer paneling and an inner paneling, both made from metallic material, or a couple which thermally uncouples both panelings. Kordes explicitly discloses that the retainer and the door seal are two different components.

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Kiel's teaching is primarily concerned with the retainer for the outer shell (12) and the inner liner pan (14). Since Kiel does not consider other materials for the outer shell (12) and the inner liner pan (14) the person of ordinary skill in the art is not motivated to even consider using different materials for the outer shell (12) and the inner liner pan (14). The person of ordinary skill in the art is not motivated by Kiel to modify the refrigerator door in such a way that the outer shell (12) and the inner liner pan (14) are made from metallic material. Similar to the refrigerator door disclosed by Pasqualini the inner liner pan (14) is made of plastic and the outer shell (12) is made of metal. Therefore, the problem of thermal coupling between the inner lining pan and the outer shell does not exist. A person of ordinary skill in the art is not motivated to provide a couple connecting the edges of the inner lining pan and the outer shell to thermally insulate the inner lining pan and the outer shell.

Kordes explicitly discloses in column 1, lines 14 to 20, that the most common approach to fasten the drum (inner paneling) to the door face (outer paneling) is by screws or bolts extending through the opposed peripheral edges of the door face and the drum. If the drum and the face are both made of metal, then alternatively a bridging strip may be used,

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wherein the strip may be welded to the edges of the drum and the face. Both of these approaches have the drawback that the inner surface and the outer surface of the refrigerator door are subjected to significantly different temperatures. The different temperatures induce a relative movement between the two surfaces (see col. 1, lines 21 to 33). In order to overcome this problem, Kordes discloses a particular method to manufacture a refrigerator door without screws or other rigid fasteners interconnecting the opposing edges of the door face and the drum allowing the door to accommodate thermally induced relative movement between these two components without damage to the door (column 2, line 33 to column 3, line 18 and column 3, line 35 to column 4, line 43).

Kordes discloses that the door face (14) and the drum (22) are assembled with their opposite edges arranged adjacent each other and being spaced apart in a certain distance using S-shaped retainers (30) and temporary spacers (36). The space between the face and the drum is then filled with an insulating foam. After the foam is hardened, the spacers are removed leaving a cavity extending around the inner surface of the door adjacent the drum. The retainers (30) are not removed. Finally, the gasket (40) is attached to the door.

As explicitly disclosed in Kordes at column 3, lines 5 to 18,

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the advantage of the refrigerator door disclosed by Kordes is that the gasket need not be installed prior to the foaming operation, although a positive connection, i.e. the retainer, is provided between the drum (22) and the face (14). As a result, the teaching of Kordes does not suggest to use a fastening element of a door seal as a couple which connects the drum (22) and the face (14) at their edge portions because this would contradict the assembling advantages of the refrigerator door according to Kordes, and therefore the advantage of the refrigerator door disclosed by Kordes.

Additionally, Kordes discloses that a serious drawback of welding, screwing, or bolting the two panelings together is the relative movement between the inner and outer surfaces of the door. Kordes discloses overcoming only this mentioned drawback, by introducing the retainer which allows relative movement between the inner and outer surfaces of the door. Kordes is absolutely silent about thermal coupling or uncoupling of two panelings of a refrigerator, when the two panelings are made from metallic material. Consequently, contrary to the present invention, Kordes does not suggest a refrigerator door having two panelings made from metallic material, wherein a couple connects both panelings and wherein the couple thermally insulates the panelings from each other.

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As a result, Kordes does not suggest a refrigerator door having two metal panelings whose edges are connected by a couple:

- wherein the couple thermally uncouples the two panelings or; and
- wherein the couple is a fastening element of a door seal.

Therefore, Kordes does not suggest a thermally insulating couple being a fastening element of a door seal and connecting the edge portion to the free edge portion, the couple substantially thermally uncoupling the edge portion from the free edge portion, as recited in claims 1, 15, and 16 of the instant application.

Furthermore, Kordes does not suggest a thermally insulating couple connecting the edge portion to the free edge portion, the couple substantially thermally uncoupling the edge portion from the free edge portion, as recited in claims 15 and 16 of the instant application.

As disclosed above, it is crucial for the refrigerator door disclosed in Kordes that the retainer connecting the edges of the two panelings is independent from the gasket (door seal). Because of this, a person of ordinary skill in the art is not provided any motivation to combine the teaching of Kordes with

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the teaching of Kiel. In fact Kordes explicitly teaches away from such a combination. Therefore, the claimed invention according to the pending claims is not obvious over Kiel in view of Kordes.

Furthermore, the couple connecting the outer shell (12) and the inner liner pan (14) of the refrigerator door disclosed in Kiel does not need to thermally uncouple the outer shell (12) and the inner liner pan (14) for the reasons given above, and Kordes is completely silent about the issue of thermally uncoupling two panelings made from metallic material. Therefore, a person of ordinary skill in the art is not motivated by Kiel in view of Kordes to equip a refrigerator door having an outer and an inner paneling both made from metallic material with a couple connecting the two panelings, wherein the couple thermally uncouples the panelings, as recited in claim 1, 15, and 16 of the instant application.

As a result, Kiel in view of Kordes does not suggest a refrigerator door having two metal panelings whose edges are connected by a couple:

- wherein the couple thermally uncouples the two panelings;
or
- wherein the couple is a fastening element of a door seal.

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Therefore, Kiel in view of Kordes does not suggest a thermally insulating couple being a fastening element of a door seal and connecting the edge portion to the free edge portion, the couple substantially thermally uncoupling the edge portion from the free edge portion, as recited in claim 1 of the instant application.

Therefore, Kiel in view of Kordes does not suggest a thermally insulating couple connecting the edge portion to the free edge portion, the couple substantially thermally uncoupling the edge portion from the free edge portion, as recited in claims 15 and 16 of the instant application.

Regarding new claim 21, the following remarks are made:

Claim 21 calls for, *inter alia*:

a thermally insulating couple connecting the edge portion to the free edge portion, the couple substantially thermally uncoupling the edge portion from the free edge portion and the thermally insulating couple being constructed for directly holding the seal foot of the door seal.

Kiel's teaching is primarily concerned with the retainer for the outer shell (12) and the inner liner pan (14). Since Kiel

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does not consider other materials for the outer shell (12) and the inner liner pan (14) the person of ordinary skill in the art is not motivated to even consider using different materials for the outer shell (12) and the inner liner pan (14). The person of ordinary skill in the art is not motivated by Kiel to modify the refrigerator door in such a way that the outer shell (12) and the inner liner pan (14) are made from metallic material. Similar to the refrigerator door disclosed by Pasqualini the inner liner pan (14) is made of plastic and the outer shell (12) is made of metal. Therefore, the problem of thermal coupling between the inner lining pan and the outer shell does not exist. Therefore, a person of ordinary skill in the art is not motivated to provide a couple connecting the edges of the inner lining pan and the outer shell to thermally insulate the inner lining pan and the outer shell.

Kordes explicitly discloses in column 1, lines 14 to 20, that the most common approach for fastening the drum (inner paneling) to the door face (outer paneling) is by screws or bolts extending through the opposed peripheral edges of the door face and the drum. If the drum and the face are both made of metal, then alternatively a bridging strip may be used, wherein the strip may be welded to the edges of the drum and the face. Both of these approaches have the drawback that

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the inner surface and the outer surface of the refrigerator door are subjected to significantly different temperatures. The different temperatures induce a relative movement between the two surfaces (see col. 1, lines 21 to 33). In order to overcome this problem, Kordes discloses a particular method to manufacture a refrigerator door without screws or other rigid fasteners interconnecting the opposing edges of the door face and the drum, allowing the door to accommodate thermally induced relative movement between these two components without damage to the door (column 2, line 33 to column 3, line 18 and column 3, line 35 to column 4, line 43).

Kordes discloses that the door face (14) and the drum (22) are assembled with their opposed edges arranged adjacent each other and being spaced apart in a certain distance using S-shaped retainers (30) and temporary spacers (36). The space between the face and the drum is then filled with an insulating foam.

After the foam is hardened, the spacers (36) are removed leaving a cavity extending around the inner surface of the door adjacent the drum. The retainers (30) are not removed. Finally, the gasket (40) is attached into the cavity left by the spacers. Thus, the outer wall and the retainer (30) hold the gasket (40). Consequently, the retainer (30) is not

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constructed to directly hold a seal foot of a door seal, as is recited in claim 21 of the instant application. In addition, the forming of the above-mentioned cavity is important to the refrigerator door disclosed in Kordes because forming the cavity and "inserting an anchoring portion of said gasket into the cavity between the face rim and drum periphery" is part of the claimed method of constructing the refrigerator door (claim 1). Therefore, Kordes does not suggest using a couple being constructed for directly holding a seal foot of a door seal, as is recited in claim 21 of the instant application.

Additionally, Kordes discloses that a serious drawback of welding, screwing, or bolting the two panelings together is the relative movement between the inner and outer surfaces of the door. Kordes discloses only overcoming this mentioned drawback, by introducing the retainer (30) which allows relative movement between the inner and outer surfaces of the door. Kordes is absolutely silent about thermal coupling or uncoupling of two panelings of a refrigerator, when the two panelings are made from metallic material. Consequently, contrary to the invention of the instant application, Kordes does not suggest a refrigerator door having two panelings made from metallic material, wherein a couple connects both panelings and wherein the couple thermally insulates the panelings from each other.

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As a result, Kordes does not suggest a refrigerator door having two metal panelings whose edges are connected by a couple:

- wherein the couple thermally uncouples the two panelings;
or
- wherein the couple is constructed to directly hold a seal foot of a door seal.

Therefore, Kordes does not suggest a thermally insulating couple connecting the edge portion to the free edge portion, the couple substantially thermally uncoupling the edge portion from the free edge portion and the thermally insulating couple being constructed for directly holding the seal foot of the door seal, as recited in claim 21 of the instant application.

As described above, it is crucial for the refrigerator door disclosed by Kordes that the gasket is fixed by the cavity between the face rim and drum periphery. Because of this, the person of ordinary skill in the art is given no motivation to combine the teaching of Kordes with the teaching of Kiel. In fact Kordes teaches a person of ordinary skill in the art away from the combination of Keil and Kordes. Therefore, claimed invention according to claim 21 is not obvious over Kiel in view of Kordes.

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Furthermore, the couple connecting the outer shell (12) and the inner liner pan (14) of the refrigerator door disclosed in Kiel does not need to thermally uncouple the outer shell (12) and the inner liner pan (14) for the reasons given above, and Kordes is completely silent about the issue of thermally uncoupling two panelings made from metallic material.

Therefore, a person of ordinary skill in the art is not motivated by Kiel in view of Kordes to equip a refrigerator door having an outer and an inner paneling both made from metallic material with a couple connecting the two panelings, wherein the couple thermally uncouples the panelings.

As a result, Kiel in view of Kordes does not suggest a refrigerator door having two metal panelings whose edges are connected by a couple:

- wherein the couple thermally uncouples the two panelings;
or
- wherein the couple is a fastening element of a door seal.

Therefore, Kiel in view of Kordes does not suggest a thermally insulating couple connecting the edge portion to the free edge portion, the couple substantially thermally uncoupling the edge portion from the free edge portion and the thermally insulating couple being constructed for directly holding the

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seal foot of the door seal, as recited in claim 21 of the instant application.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claims 1, 15, 16, and 21.

Claims 1, 15, 16, and 21 are, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claims 1, 16, or 21 they are believed to be patentable as well..

In view of the foregoing, reconsideration and allowance of claims 1-6, 8, 12-25 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel respectfully requests a telephone call so that, if possible, patentable language can be worked out.

Petition for extension is herewith made. The extension fee for response within a period of one month pursuant to Section 1.136(a) in the amount of \$110 in accordance with Section 1.17 is enclosed herewith.

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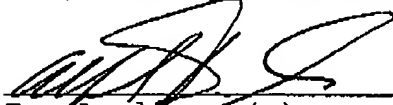
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The fee for one additional independent claim in excess of 20 claims, in the amount of \$104 is also enclosed herewith.

Please charge any other fees which might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner & Greenberg P.A., No. 12-1099.

Respectfully submitted,



For Applicant(s)

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AKD:cgm

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